# Design Document
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# Image Processor

Main function algorithm:

- Display menu options
- Prompt the user to choose an option (including an exit option)
- Call the corresponding functions depending on the user's choice
- Repeat until the user chooses to exit the program

Algorithms for additional functions:

*loadImage()*

- Prompt the user for the file name
- Attempt to read the contents of the file
- Store the image data in the 2D array

*displayImage()*

- Iterate through the 2D array that stores the image data
- Map the correct brightness values to the corresponding characters
- Display the image to the screen

*editImage()*

- Display another menu for the options on how to edit the image
- Prompt the user to choose an option to edit
- Call the corresponding functions based on the user's choice
- Display the image new image each time it is edited

*cropImage()*

- Prompt the user to display the specific row and column of the array to crop
- "Crop" this specific image from the original image
- Display the cropped image

*dimImage()*

- Iterate through the 2D array containing the image data
- Decrease the brightness value for each pixel by 1 value for each one
- Display the dimmed image

*brightenImage()*

- Iterate through the 2D array containing the image data
- Increase the brightness value for each pixel by 1 value for each one
- Display the brightened image

*rotateImage()*

- Create a new image with the 2D array coordinates swapped

- Transfer the pixels from the original image to the newly rotated image
- Display the rotated image

*saveImage()*

- Prompt the user with the option to save the edited image after completing one of the above options
- If yes, prompt for a file name
- Write the image data to the specified file